

UNITED STATES DEPARTMENT OF AGRICULTURE  
ANIMAL AND PLANT HEALTH INSPECTION SERVICE

1. REGISTRATION NO.  
51-F-0006

CUSTOMER NO.  
437

FORM APPROVED  
OMB NO. 0579-0036

# ANNUAL REPORT OF RESEARCH FACILITY (TYPE OR PRINT)

2. HEADQUARTERS RESEARCH FACILITY (Name and Address, as registered with USDA, include Zip Code)

U.S. ARMY MEDICAL RESEARCH  
ATTN: MCMR-CDZ  
3100 RICKETTS POINT ROAD  
ABERDEEN PROV GRND, MD 21010  
(410) 436-3804

NOV 28 2006

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets if necessary.)

## FACILITY LOCATIONS (sites)

See Attached Listing

## REPORT OF ANIMALS USED BY OR UNDER CONTROL OF RESEARCH FACILITY (Attach additional sheets if necessary or use APHIS FORM 7023A)

A. Animals Covered By The Animal Welfare Regulations	B. Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	C. Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress in these animals and the reasons such drugs were not used must be attached to this report.)	F. TOTAL NO. OF ANIMALS (Cols. C + D + E)
4. Dogs	0	0	0	0	0
5. Cats	0	0	0	0	0
6. Guinea Pigs	0	459	525	4,352	5,336
7. Hamsters	0	0	0	0	0
8. Rabbits	0	19	44	0	63
9. Non-Human Primates	17	3	29	37	69
10. Sheep	0	0	0	0	0
11. Pigs	0	0	41	0	41
12. Other Farm Animals	0	0	0	0	0
13. Other Animals					

## ASSURANCE STATEMENTS

- 1) Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2) Each principal investigator has considered alternatives to painful procedures.
- 3) This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all the exceptions is attached to this annual report. In addition to identifying the IACUC-approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- 4) The attending veterinarian for this research facility has appropriate authority to ensure the provision of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

## CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL (Chief Executive Officer or Legally Responsible Institutional official)

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143)

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(b)(6), (6)(7)(C)

DATE SIGNED

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ART 1 - HEADQUARTERS

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Column E Explanation Form  
USAMRICD – FY 06  
Registration Number: 51-F-0006

Protocol 1

1. A total of 1,246 column "E" guinea pigs were utilized in this study.
2. Painful procedure: Animals will receive a convulsive dose of an agent which is thought (but not documented) to cause some pain and/or distress due to the intense physical activity caused by the seizure.
3. Justification: The administration of anesthetics or analgesics to relieve pain would lead to an erroneous evaluation of the toxicity of agents and efficacy of pretreatment, treatment, and decontamination procedures.
4. No federal regulations mandate this procedure.

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Protocol 2

1. A total of 7 column "E" guinea pigs were utilized in this study.
2. Painful procedure: Animals will receive a convulsive dose of an agent which is thought (but not documented) to cause some pain and/or distress due to the intense physical activity caused by the seizure.
3. Justification: Should it occur, pain/distress might be relieved to some extent by administration of one of the test drugs that successfully terminates the seizure. Anesthetics and analgesics are known to have profound effects on brain function that can interact with the drugs of interest, the synthesis and release of brain neurotransmitters and/or the toxicity of the nerve agent and thus complicate interpretation of the results.
4. No federal regulations mandate this procedure.

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Protocol 3

1. A total of 104 column "E" guinea pigs were utilized in this study.
2. Painful procedure: Animals will receive a convulsive dose of an agent which is thought (but not documented) to cause some pain and/or distress due to the intense physical activity caused by the seizure.
3. Justification: Should it occur, pain/distress might be relieved to some extent by administration of one of the test drugs that successfully terminates the seizure. Anesthetics and analgesics are known to have profound effects on brain function that can interact with the drugs of interest, the synthesis and release of brain neurotransmitters and/or the toxicity of the nerve agent and thus complicate interpretation of the results.
4. No federal regulations mandate this procedure.

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Protocol 4

1. A total of 1,151 column "E" guinea pigs were utilized in this study.
2. Painful procedure: Animals will receive a convulsive dose of an agent which is thought (but not documented) to cause some pain and/or distress due to the intense physical activity caused by the seizure.
3. Justification: The administration of anesthetics or analgesics to relieve pain are known to have profound effects on brain, tissue, and organ function that can interact with the synthesis and release of brain neurotransmitters, and/or the toxicity of nerve agent and thus complicate interpretation of the results.
4. No federal regulations mandate this procedure.

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Protocol 5

1. A total of 5 column "E" guinea pigs were utilized in this study.
2. Painful procedure: Animals will receive a convulsive dose of an agent which is thought (but not documented) to cause some pain and/or distress due to the intense physical activity caused by the seizure.
3. Justification: Cardiovascular function can be altered by anesthetics or analgesics. It is, therefore, imperative that nerve agent administration be performed in the absence of these drugs.
4. No federal regulations mandate this procedure

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Protocol 6

1. A total of 69 column "E" guinea pigs were utilized in this study.
2. Painful procedure: Animals will receive a convulsive dose of an agent which is thought (but not documented) to cause some pain and/or distress due to the intense physical activity caused by the seizure.
3. Justification: The administration of anesthetics or analgesics to relieve pain are known to have profound effects on brain function, to include electrical seizure activity in the brain that can interact with the drugs and would complicate interpretation of results.
4. No federal regulations mandate this procedure

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Protocol 7

1. A total of 36 column "E" guinea pigs were utilized in this study.
2. Painful procedure: Animals will receive a convulsive dose of an agent which is thought (but not documented) to cause some pain and/or distress due to the intense physical activity caused by the seizure.
3. Justification: The administration of anesthetics or analgesics to relieve pain/discomfort/distress caused by nerve agent-induced convulsion would alter the progression of brain damage by minimizing the effects of nerve agent, rendering data acquisition less accurate.
4. No federal regulations mandate this procedure



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Protocol 8

1. A total of 14 column "E" guinea pigs were utilized in this study.
2. Painful procedure: Animals will receive a convulsive dose of an agent which is thought (but not documented) to cause some pain and/or distress due to the intense physical activity caused by the seizure.
3. Justification: The administration of anesthetics or analgesics to relieve pain are known to have profound effects on toxicity of nerve agents and, thus, can complicate interpretation of results.
4. No federal regulations mandate this procedure

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Protocol 9

1. A total of 23 column "E" guinea pigs were utilized in this study.
2. Painful procedure: The pharmacokinetics of the oxime compounds will be determined alone and in the presence of nerve agent. It is expected that the animals receiving nerve agents will experience some degree of pain/discomfort before the beneficial effects of the therapy compounds are realized.
3. Justification: The administration of anesthetics or analgesics to relieve pain are known to have profound effects on toxicity of nerve agents and, thus, can complicate interpretation of results.
4. No federal regulations mandate this procedure.

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Protocol 10

1. A total of 111 column "E" guinea pigs were utilized in this study.
2. Painful procedure: Animals will receive a convulsive dose of an agent which is thought (but not documented) to cause some pain and/or distress due to the intense physical activity caused by the seizure.
3. Justification: The administration of anesthetics or analgesics to relieve pain are known to have profound effects on brain, tissue, and organ function that can interact with the synthesis and release of brain neurotransmitters, and/or the toxicity of nerve agent and thus complicate interpretation of the results.
4. No federal regulations mandate this procedure.

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Protocol 11

1. A total of 196 column "E" guinea pigs were utilized in this study.
2. Painful procedure: Animals will receive a convulsive dose of an agent which is thought (but not documented) to cause some pain and/or distress due to the intense physical activity caused by the seizure.
3. Justification: The administration of anesthetics or analgesics to relieve pain would lead to an erroneous evaluation of the toxicity of agents and efficacy of pretreatment, treatment, and decontamination procedures.
4. No federal regulations mandate this procedure.

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Protocol 12

1. A total of 17 column "E" guinea pigs were utilized in this study.
2. Painful procedure: Animals will receive a convulsive dose of an agent which is thought (but not documented) to cause some pain and/or distress due to the intense physical activity caused by the seizure.
3. Justification: The administration of anesthetics or analgesics to relieve pain would lead to an erroneous evaluation of the toxicity of agents and efficacy of pretreatment, treatment, and decontamination procedures.
4. No federal regulations mandate this procedure.

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Protocol 13

1. A total of 770 column "E" guinea pigs were utilized in this study.
2. Painful procedure: This study requires exposure to lethal doses of nerve agents in live unanesthetized animals.
3. Justification: One of the principal sequelae of nerve agent intoxication is respiratory paralysis, which also happens to be a major side effect of anesthetics and analgesics. The use of anesthesia or analgesics could lead to faulty interpretation of the effectiveness of the countermeasures because of the synergistic respiratory depressant effects of these drugs with nerve agents.
4. No federal regulations mandate this procedure.

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Protocol 14

1. A total of 603 column E guinea pigs were utilized in this study.
2. Painful procedure: Animals will receive a convulsive dose of an agent which is thought (but not documented) to cause some pain and/or distress due to the intense physical activity caused by the seizure.
3. Justification: Anesthetics or analgesics cannot be used in any of the procedures involving agent administration and/or pretreatment and treatment with any of the medical countermeasures. One of the principal effects of agent intoxication is respiration paralysis. This is also a major side effect of anesthetics and analgesics. Conducting these experiments under anesthesia or analgesia could lead to faulty interpretation of the toxicity data and/or the effectiveness of the countermeasures because of the synergistic respiratory depressant effects of these drugs with the agent.
4. No federal regulations mandate this procedure.

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Protocol 15

1. A total of 13 column "E" nonhuman primates were utilized in this study.
2. Painful procedure: Animals will receive a convulsive dose of an agent which is thought (but not documented) to cause some pain and/or distress due to the intense physical activity caused by the seizure.
3. Justification: Anesthetics and analgesics are known to have profound effects on brain function that can interact with the drugs of interest and/or the toxicity of the nerve agent and thus complicate the interpretation of the results.
4. No federal regulations mandate this procedure.



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Protocol 16 (U-888)

1. A total of 19 column "E" nonhuman primates were utilized in this study.
2. Painful procedure: Animals will receive a convulsive dose of an agent which is thought (but not documented) to cause some pain and/or distress due to the intense physical activity caused by the seizure.
3. Justification: The administration of anesthetics or analgesics to relieve pain are known to have profound effects on brain, tissue, and organ function that can interact with the synthesis and release of brain neurotransmitters, and/or the toxicity of nerve agent and thus complicate interpretation of the results.
4. No federal regulations mandate this procedure.

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Protocol 17

1. A total of 5 column "E" nonhuman primates were utilized in this study.
2. Painful procedure: Animals will receive a convulsive dose of an agent which is thought (but not documented) to cause some pain and/or distress due to the intense physical activity caused by the seizure.
3. Justification: The administration of anesthetics or analgesics to relieve pain are known to have profound effects on brain, tissue, and organ function that can interact with the synthesis and release of brain neurotransmitters, and/or the toxicity of nerve agent and thus complicate interpretation of the results.
4. No federal regulations mandate this procedure.